

interface 113a, but no device is connected to interface 113. Interface module 112 may send connection signal 215 to processing module 114. In some examples, identification numbers, such as serial numbers, may be assigned to each interface 113.

[0027] Processing module 114 may receive connection signal 215 and, based on connection signal 215, may determine that a device may be connected to interface 113a. In some examples, memory 118 of energy controller 110 may include a map that may indicate correspondence between each interface 113 and each bit position of connection signal 215. For example, memory 118 may include a map that may be effective to indicate that a least significant bit of connection signal 215 ("01") may correspond to interface 113a. Processing module 114 may be further configured to analyze the map stored in memory 118 in order to determine that a device may be connected to interface 113a. In response to the determination that a device is connected to interface 113a, energy controller 110, or processing module 114, may send a request 230 to the device connected to interface 113a to request an identification of the device connected to interface 113a. Request 230 may further be a request for an indication related to a presence of a monitoring application 201 in the device connected to interface 113a. Monitoring application 201 may be an application that may include instructions effective to instruct devices 132 to collect and/or generate device data 138 in order to implement system 100. In some examples, device 132a may respond to request 230 to indicate that device 132a may not include monitoring application 201. In response to an absence of monitoring application 201 in device 132a, processing module 114 may send monitoring application 201 to device 132a or may send instructions and data to device 132a to facilitate an installation of monitoring application 201 in device 132a.

[0028] In an example, device 132a may respond to request 230 to indicate that device 132a includes monitoring application 201, and may send an identification of device 132a to energy controller 110. Monitoring application 201 may be stored in device memory 240a of device 132a. Processing module 114, in response to learning of the presence of monitoring application 201 in device 132a, may search for the identification of device 132a in device database 212. Device database 212 may include data such as identification of devices 132 and/or device application lists 222 (including device application list 222a, 222b) of devices 132. Device application lists 222 may include indications, or one or more lists, of device applications installed in each device among devices 132. For example, device 132a may include fifty different device applications, and device application list 222a may include indications of the fifty device applications. In some examples, device database 212 may include application data 224 (further described below) for each device application included in device application list 222a. Continuing with the example, processing module 114 may locate device application list 222a in device database 212 based on the identification of device 132a. In response to locating device application list 222a, processing module 114 may request device 132a to provide indications of device applications that may be different from device applications indicated by device application list 222a. In the example, device application 220 of device 132a may be a device application not indicated by device application list 222a. In response to device application 220 not being indicated by device application list 222a, processing module 114 may

perform energy test 250 on device 132a to determine application data 224 for device application 220 and device 132a.

[0029] Prior to execution of energy test 250 on device 132a, processing module 114 may determine by, for example, communicating with device 132a, whether a device application is being executed by device 132a. When no device application is being executed by device 132a, processing module 114 may determine by, for example, communicating with device 132a, whether a device application is being suspended, or in a suspended state, by device 132a. When no device application is being suspended, or executed, processing module 114 may wait until a device application is being executed by device 132a in order to execute energy test 250. In some examples, processing module 114 may instruct device 132a to execute device applications of device 132a successively in order to execute energy test 250.

[0030] In the example, when device 132a starts an execution of device application 220, processing module 114 may detect the execution of device application 220 by, for example, receiving a signal or message from device 132a. Instructions of energy test 250 may instruct device 132a to terminate device applications which are different from device application 220 in order for device 132a to generate execution data 242. In some examples, energy controller 110 may send an instruction different from instructions of energy test 250 to instruct device 132a to terminate device applications which are different from device application 220. Execution data 242 may include an indication of a start energy quantity of device 132a at a start time of execution of device application 220, and may include an indication of an end energy quantity of device 132a at an end time of execution of device application 220. For example, execution data 242 may indicate that device 132a has thirty percent energy remaining at a start time of 2:30 PM, and device 132a has twenty percent energy remaining at an end time of 2:40 PM. Device 132a may send execution data 242 to processing module 114 through interface 113a of interface module 112. Processing module 114 may receive execution data 242 and may store execution data 242 in memory 118.

[0031] In response to the completion of execution of device application 220, instructions of energy test 250 may instruct device 132a to maintain device application 220 in a suspended state for a period of time. Instructions of energy test 250 may further instruct device 132a to maintain device applications different from device application 220 in a terminated state for the period of time. For example, instructions of energy test 250 may instruct device 132a to maintain device application 220 in suspended state for ten minutes. In some examples, energy controller 110 may detect a suspension state of device application 220 after an execution of device application 220. For example, device 132a may send a message to energy controller 110 in response to a completion of execution of device application 220 to notify energy controller 110 that device application 220 may now go into a suspended state. In some examples, device 132a may send a message to energy controller 110 to indicate that device application 220 is in suspended state, and device applications different from device application 220 are in terminated state. Energy controller 110 may receive the message from device 132a in order to detect, or determine, that device application 220 is in a suspended state. Device 132a may generate suspension data 244, where suspension data 244 may include an indication of a start energy quantity of